CANNONDESIGN

CIRM RFA 07-03
Application # FA1-00609-1
Functionality Score: B-
Value Score: B+

Overall, this project delivers a major research laboratory building. At 200,000 gsf the project represents an incredible opportunity for a large community of scientists to be in one place with a focused research objective. The proposed building is a very dense laboratory building with over 92% of the space dedicated to research labs and adjacent lab support, and core support; the remaining 8% is other offices, office support, and interaction space. The building may be too low on the amount of this other social / interaction space to benefit from the density of brain-power.

Functionality

Flexibility has been incorporated through the planning concept of a modular lab unit with its associated support space. By making all the spaces repetitive, the assignment and reassignment of space can be easily accomplished. The use of flexible casework with overhead utility connections allows for rapid and low cost changes to a lab to accommodate new instrumentation or pieces of major equipment.

The clustering of the lab units into 6 PI neighborhoods fosters the sense of teamwork and encourages collaboration between the researchers; however, the PI offices are grouped in pairs and remote from each other. This pattern is common with PIs who are active in research and want close connection to the lab techs, but it misses the opportunity for greater collaboration at PI level. Given this pattern, what is missing is the communal space within the neighborhood, and between the neighborhoods, on a floor where the teams can collaborate. The current design has only one large 14-person and one small 4-person conference room per floor to service over 144 scientists. The small kitchen/break room and the cafe, while located correctly to support interaction, does not have any seating area or place to meet over a cup of coffee and interact. The lack of sit-down space will invite users to take their food/drink into the laboratories against safety regulations.

Laboratory support space on each floor is at a ratio of 1:1 with the lab bench space. This ratio is “generous” according to Stanford; however, it reflects the trend seen around the country of an increased amount of support per bench. This increase reflects the large amount of tissue culture space for hESC research and the growth in automation and scientific instrumentation used in research.

Specialized Core Support Spaces in the building include a major vivarium at 31,375 asf, and smaller histology, genomics, and imaging cores due to the significant amount of Core space in adjacent facilities.

The institution is very innovative with the integration of the translational component (Y) through the use of assigned “Y” benches/researchers directly into the basic research (X) space.

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Value

	00609-1	Institute Avg	Range
The Net/Gross sf ratio of the overall building	64.9%	65%	60.6% – 71.8%
The Building Project cost / gsf	$978	$936	$757 - $1,164
The asf of Lab + Lab Support + PI Office space / PI	3,399	1,769	843 – 3,399
The ratio of Lab to Lab Support	1:0.84	1:0.87	1:0.72 – 1:1.08
The asf Core / PI	1,577	721	108 – 1,577
The group 2 equipment budget / PI	$185,697	$427,596	$174,000 - $1.05M
CIRM funds / PI	$2,0383,333	$2,059,273	$1.6M - $2.38M

The true value of this facility is the shear number of researchers and volume of research all focused on a common goal. With this much science, the Cores can be very efficient and cost effective to operate, allowing them to be used as another tool for developing new techniques and analysis. The institute has significant Cores outside the building which represents a savings to CIRM however, what is being built is a very large (31,375 asf) barrier style vivarium which is very costly.